



K4GSO.us

The Oracle

Newsletter of the Silver Springs Radio Club

Oldest Radio Club in Marion County, FL



February 2021

President's Message

Bill Gillespie, KW5BG

Hopefully everyone is doing well in the second month of this (hopefully) recovery year. At least we're not dealing with the winter storms roaming across a lot of the country!

As a reminder, the December 2020 *Oracle* has a Contest Chart for 2021. It covers the major contests for the year that most of us would enter. Our contest gurus will help you (and me, I need it! :-)) get started. You don't need to be a 'contester' to get involved. A number of people participated in the Winter Field Day event and our club scored well. Those that have taken part in past events noticed that the 'at home' rules seemed to bring more participants. Official results should be available next month. As I write this, we have a few members participating in the CQ WPX RTTY contest. I'm sure we will hear about their experiences soon.

One way a Ham can hone their skills is through public service. In Marion County we have several opportunities to help our community. The club helps different service agencies, most notably the March of Dimes in their *March for Babies* event. We provide communications throughout the event. Once we receive the word they are going to have their March this spring, we'll get the word out. Another way is by working in the local ARES organization, which our club sponsors. If you're interested in helping this group, contact Mike Condon, W9MNC, at W9MNC.1@GMAIL.COM. Another organization that uses hams is the Marion County Emergency Management Division of the Sheriff's Office. Hams run the Marion County Emergency Response Team (MERT) which provides communications with shelters and CERT groups throughout the county. If interested, contact Leon Jurczynszyn, K8ZAG, at k8zag-mert@gmail.com. Working with any of these groups will allow you to serve your community, enhance your current skills and learn new ones.

Continued on next page....

Next Club Meeting

Tuesday, February 16 Via Zoom

Meeting Room Open: 6:30 PM

Meeting at 7:00 PM

SSRC Board of Directors first Tuesday, 7:00 PM

Upcoming Events

February 27 — Operating Day, Green

Clover Hall, 9:00 AM (Topic TBD)

March 9 — VE Testing, Green Clover Hall,

7:00 PM

**Silver Springs
Radio Club Net
K4GSO Repeater**

Mondays at 7:30 PM

146.610, PL 123

We have a terrific asset in Perry Field. For those that don't know, it's a former MARS station that has 2 rhombic antennas, and a number of other antennas. You can use the radio in the shack (after being checked out) or bring your own. As with any facility, maintenance needs to be performed from time to time. First on the list is the air conditioning unit. It needs some diagnostic work done on it which we will discuss at the next general meeting. Additionally, there is antenna work and updating to the grounding system that needs to be done. That will also be discussed at the next meeting. In the meantime, if you've never been to Perry Field, let someone know and we we'll get you out there. If you aren't able to have an antenna farm at your QTH, consider using Perry Field.

On the fun side of the scale, many of you may have heard of the TV show starring Tim Allen, *Last Man Standing*. For those who haven't, it's a comedy. Why do you care? In the corner of his office is a ham station.

Tim and some crew members, are hams. During the filming season, prior to COVID, cast members and guests would use it prior to the show or during down times. Well, this is their last season and because of COVID, they're not able to do a regular broadcasting. So an organization has stepped up host a farewell event. They will run a Multi Band, Multi Mode EVENT starting on 3/24/21 at 00:00 and running to 3/30/21 at 23:59 UTC. If you're interested, you can see all you need to know at <http://gsbarc.org/lms/>.

Lastly, we're looking for ideas of things you'd like to see at the Operating Day at Green Clover Hall. Antennas, practice talking on HF for those new hams, digital modes (FT-4/8, Winlink, etc) or any other subject you'd like to learn about. Let us know so we can make sure the experts are there to answer your questions/help you get started. Hope to see you there.

KW5BGn4@gmail.com

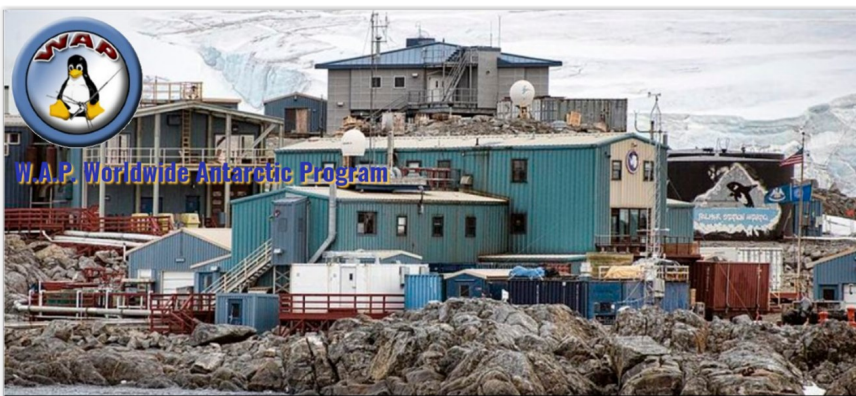
VE Update

Jim Burgess, KN4MIV

The VE team had a great testing year in 2020! We tested 69 total applicants with 59 of them passing at least one test for a 85.5% pass rate. We are also off to a good start in 2021. During our January test session we tested six applicants and all of them passed for a 100% pass rate. Boy that one was hard to figure out! Thanks to all the VE's that volunteer their time serving the HAM community, VE team members are Maurice N4LZ, Woody W3HII, Ron KS4SW, Mike W9MNC, Elbert KQ3K, Bill KW5BG, Roland KY4BD, Carl KC5CMX and myself Jim KN4MIV.

Antarctic Activity Week, Feb. 20-28, 2021

Ed Biedricki, WB2UKX



The week of February 20-28, 2021 is:

ANTARCTIC ACTIVITY WEEK

Because its summer in the Antarctic many stations will be active and will participate in the activity. The website for more information is www.waponline.it

Good Luck

SSRC Member Biographies

Tom Lufkin, W4DAX, Treasurer

I was licensed as a novice in 1972. I upgraded to Advanced in 1973 and Extra in 1975. I found the local club to be mostly VHF / UHF enthusiasts so in 1973 I suggested to several other HF friends that we form a HF club. That was the Trident Amateur Radio Club. I was the first President. I later ran for and was elected Section Communications Manager, now Section Manager, for South Carolina from 1975 - 1977. I have always been a CW fan and mostly operated CW. I found the Straight Key Century Club, SKCC, and became active in their operations. I use a Navy Flameproof Key. My rig is an Icom IC - 7300 and the current antenna is a G5RV up about 25 feet.



Recently I have become involved in Parks On The Air, POTA, and have done many activations. I am a member of QCWA. I also enjoy going to Perry Field and operating using the beams and towers available there. I recently accepted the position of Treasurer for the Silver Springs ARC and look forward to getting back to in-person meetings soon .

I am currently active in the following organizations:

ARRL Life Member FISTS # 11705

SKCC 6059T Flying Pigs # 2853

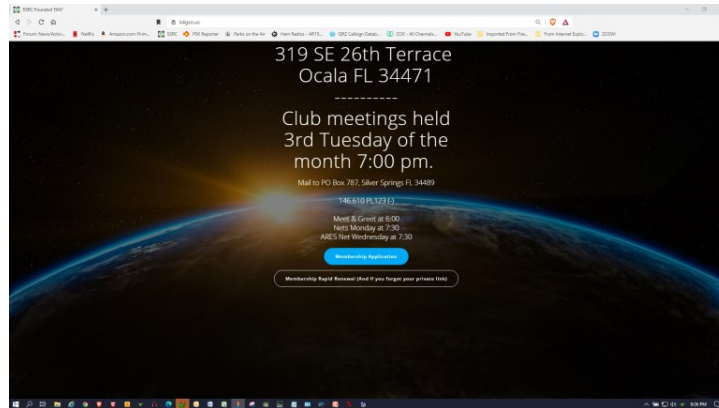
POTA

Membership Application & Renewal

Elbert Wilkinson, KQ3K, Membership Chair

Another year has passed and it is membership renewal time again. To help in the process, Carl has spent a lot of time trying to simplify the applications on the website. The following is a brief guide on how to successfully navigate the process.

Step #1: Go to the K4GSO.US webpage and scroll down to the Application area. New members, please click the Blue button. Members renewing, please click the Membership Rapid Renewal button.



Step #2: This will open the application input screen. Please follow instructions – USE ALL CAPS.

There have been a few changes to the application form. First and foremost, YOU can change and update information without having to reaccomplish the entire form. Just change the information that needs to be changed. If you haven't done this form yet, well, you need to do it once. After that, you can update your record easily.

THIS IS THE IMPORTANT PART!!!! YOUR CALL SIGN WILL BE THE KEY TO THE RECORD, NOT THE EMAIL. That means you will need your call sign to retrieve your record. You can change it but if you mess it up, well, then you will need to let the [membership chair know](#) so he can manually correct the record and chastise you.

Another change is the fact that we are not going to collect a copy of your license – pending board review of bylaws. The records are readily available on the FCC website but if you want a copy or need to update it, then [this is the place to go](#).

MAKE SURE YOUR CAPS LOCK IS ON!!!

Should this record be deleted?*	<input checked="" type="radio"/> DO NOT DELETE <input type="radio"/> DUPLICATE - DELETE THIS RECORD If you have a duplicate record showing and you need to have THIS record removed, check duplicate
First Name*	<input type="text"/>
Last Name*	<input type="text"/>
Call*	<input type="text"/> MAKE SURE ***CAPS*** IS ON
Email*	<input type="text"/>

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The fields ending with a “*” are where information is required to be entered, otherwise it is optional.

Original*	NEW MEMBERS should check original application, everyone else should be updated.
What fields may we release?*	Name call email <input type="text"/>
Address*	<input type="text"/>
City*	<input type="text"/>
State*	<input type="text"/>
Zip Code*	<input type="text"/>
Phone*	<input type="text"/> Your primary contact number
Mailing List	<input type="checkbox"/> Do you want to receive our newsletter and occasional announcements? You'll get them regardless for votes and other important items.
License Class*	Technician <input type="text"/>
Lic Exp Date*	<input type="text"/> PLEASE use the MM/DD/YYYY format
Dues paid through...*	<input type="text"/>
Updated for year:*	<input type="text"/> Even if you don't have to pay dues, you should still check here every year to make sure the information is correct.
Method of payment*	<input type="radio"/> ONLINE <input type="radio"/> SNAILMAIL <input type="radio"/> INPERSON <input type="radio"/> LIFE
Membership Desired*	<input type="radio"/> REGULAR <input type="radio"/> FAMILY <input type="radio"/> LIFE <input type="radio"/> ASSOCIATE PRICES PER YEAR ADD \$2.00 FOR PAYING ONLINE. REGULAR - \$25, FAMILY - \$35, ASSOCIATE \$15 AND CANNOT BE A LICENSED HAM
Are you an ARRL member?*	<input type="radio"/> I am an ARRL member <input type="radio"/> I am not an ARRL member To maintain our Special Service Club status, we have to have a certain percentage of club members belonging to ARRL
Other interests	<input type="checkbox"/> Field Day <input type="checkbox"/> Walk-a-thons <input type="checkbox"/> Net Control <input type="checkbox"/> Event Chair <input type="checkbox"/> March for Babies <input type="checkbox"/> Contesting <input type="checkbox"/> Don't really know yet/new ham <input type="checkbox"/> Mentoring This has NO bearing on your membership, just interests
Outside EMCOMM Organizations that I belong to or have an interest in	<input type="checkbox"/> ARES <input type="checkbox"/> MERT <input type="checkbox"/> CERT <input type="checkbox"/> SkyWarn <input type="checkbox"/> Hospital Team <input type="checkbox"/> Other <input type="checkbox"/> None This has NO bearing on your membership, just interests

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Please note that if you are submitting for a family membership, each member of your family will need to complete a separate application, otherwise they will not be included on the master roster.

Step #3: This is probably the one that creates the most confusion. The **STOP** sign says to hit the SEND button when finished. There is no SEND button – but there is a **SUBMIT** button. That is what you want to hit.

This will insert your membership data into the Master Roster. Then you will be taken to the PayPal page if that is how you have chosen to pay your dues

TERMS*

☒

Terms: I agree to be respectful of others and abide by the by-laws of the Silver Springs Radio Club and the articles of incorporation. I agree to be responsible for my actions and to not bring discredit to the club or behave in a disruptive manner at any meeting or event. Doing so is grounds for removal for the duration of the meeting or event. The electronic signature is valid regardless of who input the information. ACCEPTANCE OF TERMS CONSTITUTES AGREEMENT IS THE SAME AS AN ELECTRONIC SIGNATURE.

JUST CLICK. (TRUST ME) AND YOU'LL BE DONE * S U B M I T *

[Want to renew or just update but forgot your private link?? Click here to have it emailed to you.](#)



STOP

You must hit the send button
BEFORE completing the
PayPal transaction or
your information
will not be updated.

Regular (voting) member \$25.00 per year—must hold a valid amateur license.
Associate (Non-voting) \$15.00 per year—must have an interest in amateur radio but not hold a license.

For membership renewals, enter your call sign, hit SUBMIT and an email with instructions will be sent to you.

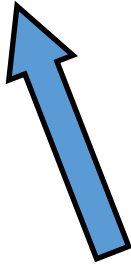
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MAKE SURE YOUR CAPS LOCK IS ON!!!

Request your Private Link

Call*

Type in your Call, your private link will be emailed to you.



Regular (voting) member \$25.00 per year—must hold a valid amateur license.
 Associate (Non-voting) \$15.00 per year—must have an interest in amateur radio but not hold a license.
 Family (Voting) \$35.00 per year—include all licensed amateurs living in the same house.
 The prices listed are for snail-mail and in person. Online prices are \$2.00 additional and included in the prices listed on the Paypal pages.

[Start Over](#)

[Email Webmaster about this form](#)

If there are no changes from your last renewal, you are almost done. Please indicate your method of payment of dues and SUBMIT. Any problems or questions, please advise.

Perry Field Update

Carl Berry, KC5CMX

Ed Biedricki, WB2UKX, and I went out to investigate the problems with and try to repair the rhombics.

The problem was the SWR on both of them was ridiculously high to the point that they are unusable. The initial response was to check the readings and verify what was previously reported. Yes, they were high, buried the needle and no swing in the ham bands, but they would dip slightly in other bands. That indicated that they were still capable of something, we just didn't know what. It also indicated that the coax may be bad.

Knowing the history of the antennas also made a big difference with trouble shooting. While Ed was busy swapping coax and connectors around, I drove around the pasture to the feed point, apex and support poles. I found something interesting.

Several of the poles had lost their lightening systems so instead of the juice going directly to ground, it would travel along the antenna until it found a ground. Hmmm .

Further snooping discovered that the west rhombic has lost the ladder line connection so that would cause erratic readings. We replaced the coax from the East rhombic feeding to the inside and it reads better than it did in 2017! (then on 14.150 it was 1.7. Now, about 1.5-1.6) I would say it's fixed!

The west rhombic- that's going to take a while longer. What's needed is another 8'-10' jumper, one end with a female N connector and the other end a PL-259. We also need some sealant tape to seal all these connections from the weather.

I'll get ahold of Ocala Electric and see if they can assist us again with repairs In the next few weeks while we have a break in the weather.

NEW PORTABLE SETUP

By Elbert Wilkinson, KQ3K

January 27, 2021

THE CHALLENGE:

I like the challenge of portable operations. Over the last couple of years I have been on a quest to minimize the equipment requirements yet obtain the best operating capability as possible.

Lugging around a laptop with its limited battery capacity and higher 18-19v power requirement was not an ideal solution. There weren't many other options although a 12v laptop would have fit the bill. That's when I pivoted to the Raspberry Pi for portable operations.

However, there were some challenges to overcome. Among them were different power requirements for the Pi, separate monitor, cables and setup. That does not include the power source and setup for the radio either. Then there were the different software packages in Linux or Raspian Buster. Some worked flawlessly; others not so well. So, what else could I do to improve this situation?

THE IDEA:

OK, I confess...I like to watch amateur radio porn on YouTube. It's embarrassing to admit it, especially when the XYL catches me in the act late at night. I've been seeking treatment, but it doesn't help. I keep seeing new things to play with. One of the "tubers" I like to watch is a really smart guy, K6ARK, who posted a video last week, [Pi-Free Portable FT-8](#), as an alternate solution. He was using a small Windows 10 tablet in the field and making contacts. That got my attention!

A SOLUTION?:

Wouldn't it be great to reduce all the clutter and run your ham radio software on a computer using only a common 5v2a micro-usb charger? The solution - an inexpensive 8" Windows 10 tablet on EBAY. It was ordered on Saturday and arrived Monday. Total cost delivered \$74.90. It came loaded with 4GB RAM, a 64 GB SSD, a separate micro USB power/charge port, USB -C, USB-B, micro HDMI, combination speaker/mic port and a SDHC micro card slot for storage expansion (I added 128GB), Bluetooth, wireless connectivity and an internal battery. How great is this...all for less than

\$75? That's equal to or less than a new Pi4 excluding the peripherals and it runs out of the box! Since it is Windows 10, my learning curve would be negligible.

The following outlines how I put the new setup together and results achieved. Read on to see what happened!



TABLET PROGRAMS:

This setup is designed for use with either an Elecraft KX2 or a Xiegu G-90 for QRP or portable operations. Both rigs are all mode HF SDR, have internal tuners and run off 12v. This setup could easily be adapted for a FT-817/818 or another low power draw rig. I ended up loading the following software on the tablet which pretty much replicates my home laptop.

Software Package	Purpose
FL Rig	Rig control where needed
FI Digi	Digital modes
WSJT-X	Conversational weak signal mode
JTAlert for WSJT-X	Add-on to WSJT-X
JS8Call	WSJT-X based messages
WinLink Express	HF email programs
VARA	High speed WinLink add-on
RigExpert Antscope	Pairs with Stick 230 analyzer
N3FJP	Logging software
U-Blox	GPS dongle software
Dimension 4	Time sync when in network

Once the software was loaded but before installation, I went to [FTDichip.com](#) and downloaded the required drivers for the KX2 and G-90 CAT control. CAT control always works better with the correct drivers!

For brevity, details of the individual software installations will be omitted. This process is fairly simple and straight forward.

PUTTING IT TOGETHER:

Power in the field is always a concern. Fortunately, I had previously obtained several Bioenno 12v LifePo4 batteries to power the radios. All have Anderson Power

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Pole connectors. In addition, I recently added a Panergy 25,000mAh LiPo power bank to recharge various USB devices which will now be used to power or recharge the tablet. A Bioenno 28w solar panel and charge controller will be used to recharge all the batteries if operating for an extended period of time.

Both rigs connect to the tablet via proprietary CAT cables. Audio connections are via off-the-shelf 3.5mm male-male spring cables connected to inexpensive USB stereo sound cards. These can be purchased for under \$10 on Amazon or EBAY. I paid \$3 for mine when Radio Shack went out of business. You could also use a Signalink USB if needed, but that is more expensive.

The tablet is a touch screen but I just happened to have a spare wireless mouse that makes it much easier to use. I may eventually switch to a small Bluetooth mouse which would free up a USB port.

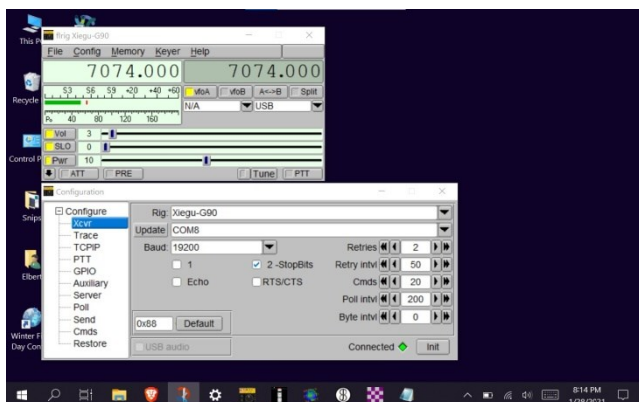
The keyboard is a Logitech Bluetooth 480K keyboard with a built in slot where the tablet sits. Also found in the bottom of a drawer was a 8" Bluetooth keyboard that pairs with the tablet and folds up for a much smaller compact unit. The also tablet has an onscreen keyboard that could be used but it would be tedious. Finally, I have a couple of USB hubs that can be plugged in to expand the peripherals.

MAKING IT WORK:

I was curious and hopeful all of this would work. There was no reason for it not to, but I had to find out.

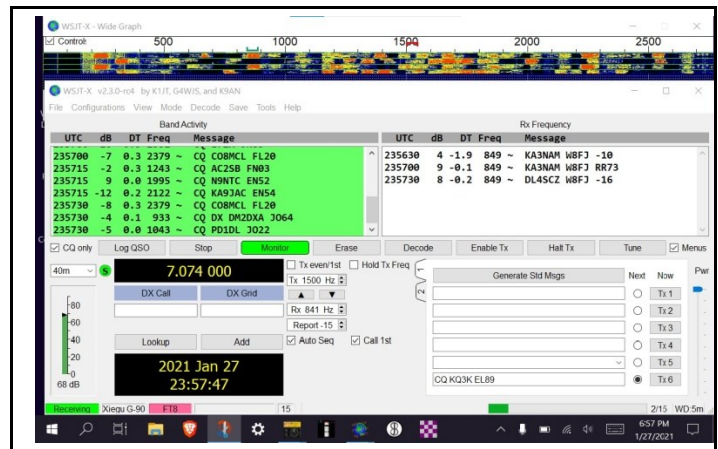
First, I started up FLRig for CAT control and configured the settings.

FLRig



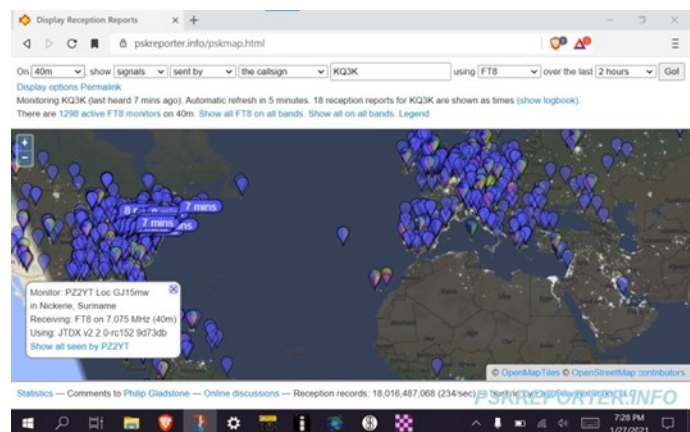
Next I started up WSJT-X, ran through the setup screen and tuned the G-90. I was operating from inside my office/shack, so Dimension 4 was providing accurate time sync.

WSJT-X



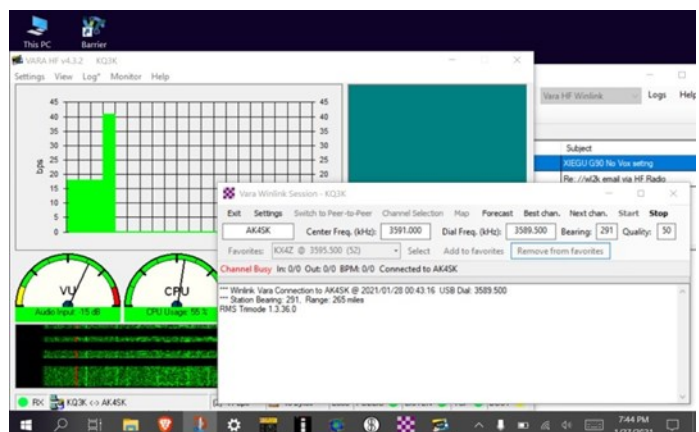
40m was open and here is my screen shot using PSK Reporter

PSK Reporter



Next, I wanted to see if WinLink Express and VARA could work from such a small windows based platform. I opened and configured Winlink. Then I configured VARA HF and started the session. I was able to quickly connect to a station and checked for messages. There were none, but it did work.

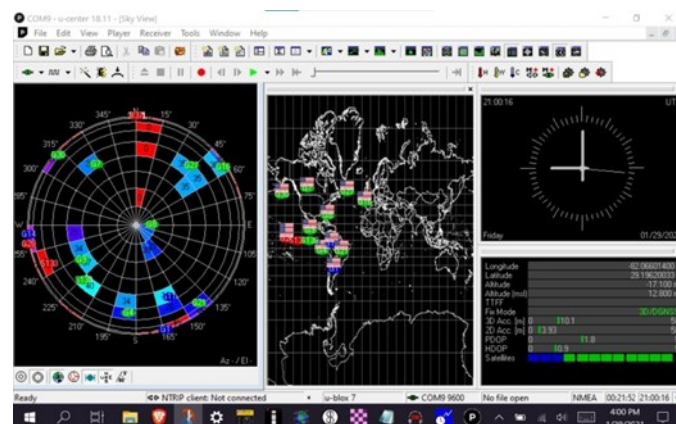
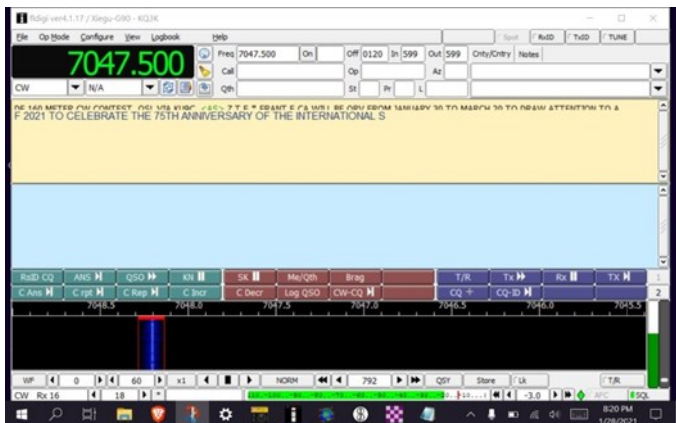
WinLink Express Using VARA



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Although operating from inside using DM4, I installed U-Blox and its drivers to support the external GPS dongle when operating outside. Once configured with the correct port and the GPS established satellite sync, the screen populated with the following data.

U-Blox U-Center

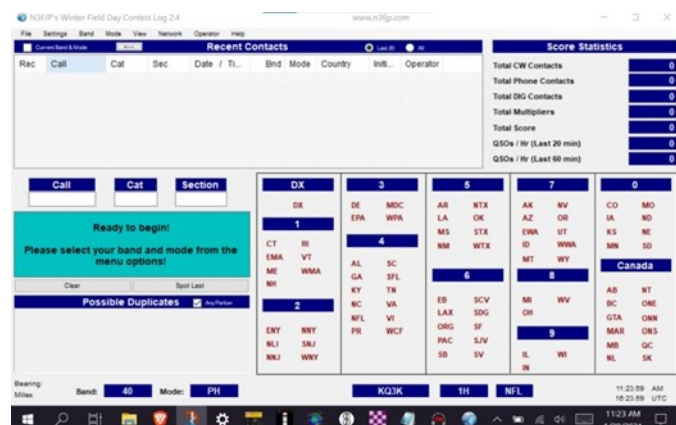


After setting up the U-Blox GPS receiver, the software does not need to run continuously, so I shut it down.



Finally, I wanted to see how a logging program like N3JP would work on a smaller format. It too works as expected.

N3FJP



Overall, I was quite pleased with the performance of the small tablet. It allows for a compact size but with the full suite of Windows based radio software programs we have grown accustomed to operating. There are some trade offs – as with any system – but none are deal killers.

I will put it to the test in the upcoming Winter Field Day this weekend.

If you read this far without falling asleep, Thank You!

JS8CALL



WINTER FIELD DAY – 2021

Portable Operations Report

Elbert Wilkinson, KQ3K

I was eager to try out my new portable setup during a longer test session. Winter Field Day to the rescue! The timing was perfect. With COVID rules in effect, I set up as a HOME station out in my garage using 100% battery power. The weather was perfect – cool with very low humidity. Welcome to Florida in the Winter!



On the left is my 10" Samsung tablet used to monitor the SSRC's results on [ContestScoresOnline](https://ContestScoresOnline.com). In the middle is my 8" Windows tablet with a Bluetooth keyboard. On the right is the Xiegu G-90 guarded by an adult beverage procured purely for its medicinal qualities to prevent dehydration.

I setup my Bioenno 28W solar panel in the driveway which was used to recharge the Bioenno batteries. I was fortunate to have 12V12AH, 12V6AH and 12V3AH batteries because the G-90 draws about 4.5amps on transmit at 20W. Battery changes were necessary during the operating event when they dropped to 11v.



I setup my Buddipole antenna in the front yard. The Buddipole was configured to operate for both 20M and 40M with minimal change-over effort.

20M was set up as a vertical which requires a 16' +/- elevated radial. 40M was configured as a dipole. Both tuned down to a 1.5 – 1.6 SWR which was close enough for me.



Vertical 20M element and 40M horizontal dipole



Another view of the Buddipole.

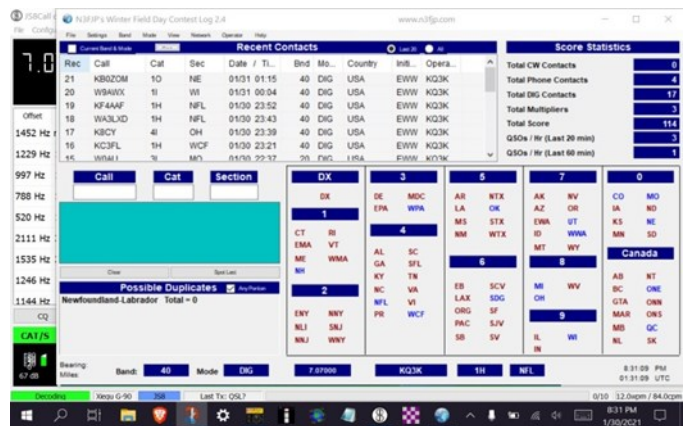
I chose to operate primarily digital modes during the WFD event although I did make four phone contacts. I started off on FLDigi using PSK31 and made 38 contacts. Logging with N3FJP software was seamless as expected.

Eventually I switched over to JS8CALL (JS8) which is a weak-signal conversational mode built on the WSJT-X backbone. Since its introduction several years ago, JS8 has been continuously improved. I had never before made any contacts on JS8 until this contest. It takes a little getting used to but after a while one gets the hang of it. I made 18 JS8 contacts and was pleased with each of them. JS8 interfaces with N3FJP for logging. Unfortunately, I didn't catch that on the setup so my contacts were manually entered. This has some good potential for POTA or other portable operations.

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JS8

Screenprint of JS8 during live transmission.

N3FJP

N3FJP for logging entry with JS8 peeking out from behind. It was easy to toggle between the two programs when operating and logging.

SUMMARY:

I wasn't sure what to expect when I began this project. It could have been a total bust and if so, I would have repurposed the 8" tablet. However, I was pleasantly surprised with the build quality of the tablet, its functionality, screen readability, and its handling of all the programs I loaded it up with despite its small size. Most of the attachments acquired for the Raspberry Pi work on the tablet. I suppose one could really add a lot more programs, but that would defeat the goal overall goal a small power miserly system dedicated for portable operations.

Now all that is needed are some more portable operating events to give the new setup a more robust test.

For a future article, I plan to substitute an HT for the HF rig to see if I can send email through the local Winlink VHF/UHF gateways. There is no reason it should not work. If an HT such as an Icom ID-51A or Yaesu FT2DR were used, one could also ditch the separate GPS dongle as these HTs also have GPS receivers. GPS is needed because both WSJT-X and JS8CALL require precise UTC time synchronization.

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[NFL Section Website](#)
[WA7BNM Contest Calendar](#)
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